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ABSTRACT

This report summarizes a study of costs of health professions training programs from certificate to professional level in Colorado. The main findings include the following: the majority of degree programs are offered at the University of Colorado Health Sciences Center and at community and local district colleges; there is a high degree of coordination and articulation between levels for similar programs; costs range widely between programs and institutions; tuition and fees cover from less than 20 percent of costs for some programs to more than 60 percent for others; because most institutions have a single tuition rate, tuition is not tied directly to program costs; student demand exceeds capacity in the majority of health care programs; expansion of some programs would be appropriate; programs have been effective in preparing most students for success in licensing examinations; and since health professions programs prepare students for specific careers, students either find employment in their field or go on to further training. Tables provide information on costs and revenue at the Health Sciences Center and at other institutions, on full-time tuition rates at various institutions, on licensing examination success, and on placement and starting salaries. (CH)

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COLORADO COMMISSION ON HIGHER EDUCATION

ACCESS TO HIGH-QUALITY, AFFORDABLE EDUCATION FOR ALL COLORADANS

PROFESSIONAL HEALTH EDUCATION REPORT

OCTOBER 1996

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EXECUTIVE SUMMARY

On May 8, 1996, the Joint Budget Committee (JBC) asked the Colorado Commission on Higher Education (CCHE) for "...a study of costs of health care programs at the certificate, associate, baccalaureate, masters, doctoral, and professional levels. The study should encompass the costs necessary to accomplish the educational goals of the programs at each level, the appropriate sharing of costs between the students and the state at each level, and ways in which costs can be reduced by articulation of programs and sharing of resources among similar programs at different levels."

This report, the Commission's response to that JBC request, presents the requested information in summary format. Profiles of each degree program are the basis for this report. These profiles as well as a complete report prepared by the Health Sciences Center and other program descriptions were submitted to the Joint Budget Committee and are available to interested parties at the Commission offices.

In generating the information included in this report, the Commission worked with representatives of each of the governing boards with programs in the health professions. It became clear to this group early in the study that it would be difficult to generate precise and comparable cost and revenue information across the range of institutions and programs. The methodology used to derive this information is explained in the Costs and Revenues Section of this report and should help avoid misinterpretation.

The main points from this summary of health professions programs in Colorado are:

- The majority of degree programs in the health professions are offered at the University of Colorado Health Sciences Center (CU-HSC) and by the state's system of community and local district colleges.

- A high degree of coordination and articulation exists between levels for similar programs. This is true in particular in nursing, where the Colorado Nursing Articulation Model sets standard requirements for the progress of students through the levels of nursing training.

- Costs range widely between programs and institutions.

- Tuition and fee revenues cover a wide range of costs: below 20 percent for some programs, and above 60 percent for other programs. In no case do tuition and fee revenues cover the entire program costs, so the state contributes to

these programs at varying rates. It is important to note that tuition reported by CCHE is aggregated by governing board, not individual institutions.

- Most institutions have a single tuition rate, so that tuition is not tied to program costs. At CU-HSC, rates are differentiated to some degree between programs and levels.

- Given the wide range in costs, tuition policies and rates would need to change substantially at most institutions if a decision were made to proportionately relate tuition rates to individual program costs.

- Student demand exceeds the capacity in the majority of the health care programs.

- In programs where student demand, employment opportunities and starting salary levels are strong, expansion may be appropriate and, in some instances, may be appropriately financed through higher tuition rates.

- Graduates of most of the health professions programs must pass a national and/or state licensing examination before beginning or establishing themselves in a professional career. Programs are effective in preparing most students for success in these licensing examinations.

- Health professions programs prepare graduates for specific careers. Most students either succeed in finding employment in their fields or choose to go on to further training.

OVERVIEW OF PROFESSIONAL HEALTH EDUCATION

COSTS AND REVENUES

Tables 1 and 2 show program cost and revenue information; table 1 for CU-HSC and Table 2 for other institutions. Table 3 shows tuition rates for each of the degree programs in this report.

While CU-HSC is dedicated in its entirety to health professions programs, other institutions offer health and other unrelated degree programs. Therefore, CU-HSC could determine total costs related to training students, while other programs identified the direct costs of each program. Costs incurred elsewhere at these other institutions in training their health professions majors, such as general education or chemistry courses taken by a nursing student, are not included because they could not be isolated. All institutions included an average per student overhead allocation in the reported costs.

CU-HSC allocated its tuition and fee revenues to degree programs based on actual collections from students in each program. The other institutions based tuition and fee revenues on full-time student equivalents taking courses in each program area. For example, a nursing program may have 500 students (headcount) who major in nursing. Because these students take courses in other disciplines, not all the tuition and fee revenues they generate can be deemed to cover the costs of the nursing program. Also, other students not majoring in nursing may take some of the classes offered in the nursing program.

These varying methodologies assured that CU-HSC and the other institutions generated cost and tuition and fee revenue information with internal consistency. This information, however, is not comparable between CU-HSC programs and those at the other institutions.

Several programs conduct clinics which incur costs and generate clinical revenues. These clinics are a significant part of the overall educational program for these programs. Students receive part of their training by working and gaining hands-on experience in these clinics. CU-HSC allocated clinical revenues generated to each degree program, as did the Communications Disorders program at the University of Colorado at Boulder. Other programs felt it was more appropriate to exclude clinic revenues and costs from their information. CU-HSC includes these practice plan costs and

revenues in Table 1. Table 2 includes clinical costs and revenues for the University of Colorado program and notes instances where programs have clinics but chose to exclude them from the calculations. Table 3 shows the tuition rates for each of the degree programs in this report.

For all of the above reasons, this report does not calculate overall or average numbers indicating the degree of student and state cost sharing for the health professions programs. Revenues, calculated as explained here, cover program costs ranging from a low of 14.5 percent in one of the community college practical nursing programs to a high of 71.2 percent for a multi-level program at the University of Northern Colorado. At CU-HSC, tuition and fee revenues cover from 11 percent of costs in the School of Medicine, to 19 percent in the School of Pharmacy. Because of clinical and other revenues allocated to the various CU-HSC programs, the General Fund support ranges from 77 percent for the School of Pharmacy, to 37 percent for the School of Medicine.

STUDENT DEMAND

Programs accept a wide range of qualified applicants for the health professions programs covered in this report. An extreme is the Genetic Counseling program at the Health Sciences Center, which reports accepting only 1 percent of qualified applicants. More common are programs which accept from 15 percent to 50 percent of qualified applicants. This strong student demand for programs, linked with strong employment opportunities and salaries for graduates, indicates an opportunity to review the need to expand some of these programs and possibly increase student tuition rates, as appropriate, to fund part of such expansion. Table 4 summarizes information provided by each of the programs regarding student demand, success of students in passing licensure examinations, and job placement rates.

LICENSING EXAMINATION RESULTS AND EMPLOYMENT OPPORTUNITIES

Based on the information supplied by each of the programs most of the health professions programs are effectively preparing students to pass required national and/or state licensing examinations. The reported pass rates range from 75% to 100%, with the great majority of programs reporting pass rates at or above 90%.

Programs also submitted information regarding placement of graduates. This information indicates a high success rate in placing graduates into jobs in their fields or preparing them for more education, including graduate education. Placement rates reported for the programs range from 70 percent to 100 percent, with the large majority of programs reporting rates at or above 90 percent.

ARTICULATION, COOPERATIVE AGREEMENTS AND RESOURCE SHARING

Nursing programs, which are offered at all levels through the range of degree programs, are highly articulated via the Colorado Nursing Articulation Model, which sets standard requirements for the progression through levels of nursing training in the State of Colorado. In addition, the dental assisting and dental hygiene programs work within a state articulation agreement.

Beyond these overall agreements, the program profiles and other materials submitted for this report show a wide range and variety of cooperation and resource sharing within and between institutions, and with public and private sector entities and even other states. Following are some examples of such cooperative, resource-sharing arrangements (this is not a comprehensive list):

- The Colorado State University occupational therapy program has an articulation agreement with two-year occupational therapy assistant programs at three community colleges (Arapahoe, Morgan and Pueblo).

- Adams State College has medical technology clinical partnerships with Parkview Hospital in Pueblo and Penrose Hospital in Colorado Springs.

- The University of Northern Colorado uses affiliate faculty (physicians, clinicians and educators from the community) in several of its communication disorders programs. The University of Northern Colorado also has a partnership with Wyoming to expand recruitment, education and retention of primary care mid-level nursing clinicians in rural and under served communities.

- The Health Sciences Center reports wide use of community clinical settings for students; providing core science courses taught by the School of Medicine to students in all its programs needing these courses; working with the other University of Colorado campuses and with Colorado State University and the University of Northern Colorado on a common core of electronic library information and knowledge resources on all campuses and via remote access; establishing a program for students to earn joint health professional and business administration degrees with the University of Colorado-Denver; and providing access to courses at all other University of Colorado campuses for Health Sciences Center students.

- The community colleges report participation in nursing, dental assisting and occupational therapy articulation agreements preparing graduates for

further study, and clinical experiences in the community for many of the programs.

These cooperative, resource-sharing arrangements should be encouraged to continue and expand to additional areas.

CONCLUSIONS

Costs, revenues and state support vary widely within and between institutions and programs. Most institutions have a single tuition rate for all programs they offer. As a result, tuition policies and rates would need to change substantially at most institutions if a decision were made to relate tuition rates closely to the costs of individual programs.

Some of the health professions programs offered by Colorado's public higher education institutions are unable to accommodate significant student demand for training even in fields where employment opportunities and salary levels of graduates are strong. For such programs, expansion may be appropriate and, in some instances, may be appropriately financed through higher tuition rates.

The health professions programs fill a significant need in providing health care workers for the state and its communities. Cooperative relationships between the programs and the state's communities are strong and should be the basis for further examination of program need and state support.

Table 1

FY 1994-95 Information on Costs and Revenues - University of Colorado Health Sciences Center

School of Medicine

Actual Costs/Data		Educational Programs[6]										Total
		MD	MSTP	CHAP MS	CHAP BS	MS/MSPH	PhD	PT	Genetic Assoc	Med Lab	Dental	
Headcount	Resident	486	26	57	21	138	115	92	9	18		962
	Nonresident	23	1		2	41	17	22	6			112
	Total	509	27	57	23	179	132	114	15	18		1,074
Tuition/Fee Revenue	Resident	4,898,435	43,920	43,096	109,235	94,106	71,803	571,631	26,367	71,304		5,929,897
	Nonresident	884,744	29,464		41,464	185,832	72,671	453,915	73,794	15,552[1]		1,757,436
	Student Fees	21,947	1,164	2,458	992	7,718	5,692	4,916	647	776		46,310
	Total	5,805,126	74,548	45,554	151,691	287,656	150,166	1,030,462	100,808	87,632		7,733,643
Cost	Unrestricted Funds w/o ICR	12,700,968	406,260	821,073	515,309	1,663,527	2,914,380	1,109,731	233,065	463,992	553,796	21,382,101
	Restricted Funds	15,641,836	389,975	1,088,756	683,308	2,205,866	3,864,519	1,471,522	309,049	576,117		26,230,948
	Auxiliary Fund	62,008					12,000					74,008
	Practice Plan	9,811,963	424,248							39,144		10,275,355
	Other	(828,764)	(26,509)	(53,577)	(33,625)	(108,549)	(190,169)	(72,412)	(15,208)	(30,276)	(36,136)	(1,395,255)
	Total Direct Costs	37,388,011	1,193,974	1,856,252	1,164,992	3,760,844	6,600,730	2,508,841	526,906	1,048,977	517,660	56,567,187
	Indirect Costs	5,477,035	290,530	613,342	247,489	1,926,108	1,420,370	1,226,683	161,406	193,687		11,556,650
	Total Program Costs	42,865,046	1,484,504	2,469,594	1,412,481	5,686,952	8,021,100	3,735,524	688,312	1,242,664	517,660	68,123,837

[1] Due to a change in residency status during the year for Medical Laboratory Sciences Students, there is no corresponding headcount for nonresident tuition revenue.

Table 1 Continued

FY 1994-95 Information on Costs and Revenues - University of Colorado Health Sciences Center

School of Medicine Continued

Actual Costs/Data		Educational Programs[6]										Total
		MD	MSTP	CHAP MS	CHAP BS	MS/MSPH	PhD	PT	Gen Assoc	Med Lab	Dental	
Cost	Cost per Student[2]	84,539	54,982	43,326	61,412	32,044	60,766	32,768	45,888	69,036		
Source of Funds	Tuition and Fees	5,805,126	74,548	45,554	151,691	287,656	150,166	1,030,462	100,808	87,632		7,733,643
	Other	24,687,043	787,714	1,035,179	649,683	2,097,317	3,686,350	1,399,110	293,841	584,985	(36,136)	35,185,086
	General Fund	12,372,877	622,242	1,388,861	611,107	3,301,979	4,184,584	1,305,952	293,663	570,047	553,796	25,205,108
	Total Source of Funds	42,865,046	1,484,504	2,469,594	1,412,481	5,686,952	8,021,100	3,735,524	688,312	1,242,664	517,660	68,123,837

[2] Includes costs incurred by the School of Dentistry that benefit students at the School of Medicine.

Table 1 Continued

FY 1994-95 Information on Costs and Revenues - University of Colorado Health Sciences Center

School of Dentistry

Actual Costs/Data		Educational Programs[6]				Total
		Dental (DDS)	Hygiene (DH)	MD	MS/MSPH	
Headcount	Resident	99	38			137
	Nonresident	41	2			43
	Total	140	40			180
Tuition & Fee Revenue	Resident	630,051	151,154			781,205
	Nonresident	804,927	25,692			830,619
	Student Fees	40,752	4,675			45,427
	Total	1,475,730	181,521			1,657,251
Costs	Unrestricted Funds w/o ICR	5,713,460	965,801	165,448	48,945	6,893,654
	Restricted Funds	29,598	5,003			34,601
	Auxiliary Fund	26,319	4,284			30,603
	Practice Plan	11,571	1,884			13,455
	Other	670,436	54,360			724,796
	Total Direct Costs	6,451,384	1,031,332	165,448	48,945	7,697,109
	Indirect Costs	1,507,520	430,719			1,938,239
	Total Program Costs	7,958,904	1,462,051	165,448	48,945	9,635,348

Table 1 Continued

FY 1994-95 Information on Costs and Revenues - University of Colorado Health Sciences Center

School of Dentistry Continued

Actual Costs/Data		Educational Programs[6]				Total
		Dental (DDS)	Hygiene (DH)	MD	MS/MSPH	
Cost	Cost per Student[3]	60,547	36,551			
Source of Funds	Tuition and Fees	1,475,730	181,521			1,657,251
	Other	737,924	65,531			803,455
	General Fund	5,745,250	1,214,999	165,488	48,945	7,171,642
	Total	7,958,904	1,462,051	165,448	48,945	9,635,348

[3] Includes costs incurred by the School of Medicine that benefit students at the School of Dentistry, and operating costs of the Dental School patient care clinics.

Table 1 Continued

FY 1994-95 Information on Costs and Revenues - University of Colorado Health Sciences Center

School of Nursing

Actual Costs/Data		Educational Programs[6]					Total
		ND	MS	BS	Outreach	PhD	
Headcount	Resident	87	269	289	66	51	762
	Nonresident	7	15	5		30	57
	Total	94	284	294	66	81	819
Tuition & Fee Revenue	Resident	286,215	696,005	1,020,305	111,882	103,658	2,218,065
	Nonresident	44,677	108,122	42,797		246,165	441,761
	Student Fees	8,566	3,790	21,815		1,097	35,268
	Total	339,458	807,917	1,084,917	111,882	350,920	2,695,094
Costs	Unrestricted Funds w/o ICR	856,613	1,763,615	1,410,892	503,890	503,890	5,038,900
	Restricted Funds	148,246	722,215	70,996	1,252	106,805	1,049,514
	Practice Plan	8,566	311,927	3,288			323,781
	Total Direct Costs	1,013,425	2,797,757	1,485,176	505,142	610,695	6,412,195
	Indirect Costs	1,011,433	3,055,821	3,163,420	710,156	871,554	8,812,384
	Total Program Costs	2,024,858	5,853,578	4,648,596	1,215,298	1,482,249	15,224,579
	Cost per Student	21,541	20,611	15,812	18,413	18,299	

Table 1 Continued

FY 1994-95 Information on Costs and Revenues - University of Colorado Health Sciences Center

School of Nursing Continued

Actual Costs/Data		Educational Programs[4]					Total
		ND	MS	BS	Outreach	PhD	
Source of Funds	Tuition and Fees	339,458	807,917	1,084,917	111,882	350,920	2,695,094
	Other	156,812	1,034,142	74,284	1,252	106,805	1,373,295
	General Fund	1,528,588[4]	4,011,519	3,489,395	1,102,164	1,024,524	11,156,190
	Total	2,024,858	5,853,578	4,648,596	1,215,298	1,482,249	15,224,579

[4] Funded by external support in the amount shown for General Fund. This amount reflects future General Fund support following 1996 program approval by the Colorado Commission on Higher Education.

Table 1 Continued

FY 1994-95 Information on Costs and Revenues - University of Colorado Health Sciences Center

School of Pharmacy

Actual Costs/Data		Educational Programs[6]				Total
		PharmD	BS	PharmD/BS[5]	PhD	
Headcount	Resident	14	354	368	19	387
	Nonresident		45	45		45
	Total	14	399	413	19	432
Tuition & Fee Revenue	Resident	58,719	996,330	1,055,049	36,393	1,091,442
	Nonresident		465,434	465,434		465,434
	Student Fees	2,390	28,962	31,352	1,010	32,362
	Total	61,109	1,490,726	1,551,835	37,403	1,589,238
Costs	Unrestricted Funds w/o ICR	610,974	1,779,458	2,410,432	776,706	3,187,138
	Restricted Funds	7,434	21,895	29,329	34,335	63,664
	Auxiliary Fund		24,383	24,383		24,383
	Other	8,400	234,000	242,400		242,400
	Total Direct Costs	626,808	2,079,736	2,706,544	811,041	3,517,585
	Indirect Costs	150,698	4,294,936	4,445,635	204,521	4,650,155
	Total Program Costs	777,506	6,374,672	7,152,179	1,015,562	8,167,740

[5] This column adds the PharmD and the BS programs together to show a combined per student cost based on a larger student base. The low headcount in the PharmD program, which is due to its status as a startup program, results in an abnormally high cost per student.

Table 1 Continued

FY 1994-95 Information on Costs and Revenues - University of Colorado Health Sciences Center

School of Pharmacy Continued

Actual Costs/Data		Educational Programs[6]				Total
		PharmD	BS	PharmD/BS[5]	PhD	
Costs	Cost per Student	55,536	15,976	17,317	53,451	
Source of Funds	Tuition and Fees	61,109	1,490,726	1,551,835	37,403	1,589,238
	Other	15,834	280,278	296,112	34,335	330,447
	General Fund	700,563	4,603,668	5,304,232	943,824	6,248,055
	Total	777,506	6,374,672	7,152,179	1,015,562	8,167,740

[6] Key: BS-Bachelor of Science, CHAP-Child Hlth Assoc/Physician Asst, DDS-Doctor of Dental Surgery, DH-Dental Hygiene, MD-Doctor of Medicine, Med Lab-Medical Laboratory Sciences, MS-Master of Science, MSPH-Master of Science in Public Health, MSTP-Medical Scientist Training Program, ND-Doctor of Nursing, PharmD-Doctor of Pharmacy, PhD-Doctor of Philosophy, and PT-Physical Therapy.

Table 2

FY 1994-95 Information on Costs and Revenues - Other Institutions

School	Program	Degree[6]	SFTE	Program Cost	SFTE Cost	Tuition & Fee Revenue[7]	Tuition & Fee Revenue/Cost %	State Support
CSU	Occupational Therapy	BS, MS	231.0	$1,412,637	$6,115	$884,690	62.6	$527,947
	Prof Veterinary Medicine	DVM	523.0	$15,938,126	$30,474	$8,789,197	55.1	$7,148,929
USC	Nursing	BS	75.1	$581,082	$7,737	$152,217	26.2	$428,865
ASC	Medical Technology[8]	BS	10.0	$27,058	$2,706	$17,808	65.8	$9,250
MSC	Radiologic Technology	AAS	28.0	$170,175	$6,069	$46,118	27.1	$124,057
	Nursing	BS	112.2	$680,699	$6,069	$172,741	25.4	$507,958
MSCD	Nursing/Hlth Care Mgmt	BS	227.0	$1,043,804	$4,598	$343,022	32.9	$700,782
UNC	Communication Disorders	BA, MA	137.0	$761,431	$5,558	$392,094	51.5	$369,337
	Human Rehabilitation	BS, MA, PHD	116.0	$452,472	$3,901	$322,157	71.2	$130,315
	Nursing	BS, MS	215.0	$1,536,989	$7,149	$504,864	32.8	$1,032,125
	Medical Technology	BA	3.0	$13,227	$4,409	$7,477	56.5	$5,750
UC-B	Communication Disorders	BA, MA, PHD	126.8	$1,591,992	$12,558	$795,316	50.0	$575,265
ACC	Physical Therapy Asst	AAS	28.5	$105,483	$3,705	$62,985	59.7	$42,498
	Medical Laboratory Technology	AAS	25.7	$103,238	$4,023	$49,059	47.5	$54,179
	Nursing	AAS	131.0	$647,459	$4,943	$220,142	34.0	$427,317
	Occupational Therapy Asst	AAS	20.4	$94,363	$4,626	$37,488	39.7	$56,875
	Pharmacy Technician	C	9.0	$66,384	$7,351	$15,020	22.6	$51,364
CCD	Surgical Technology	C	15.0	$71,729	$4,782	$23,057	32.1	$48,672
	Nursing	AAS	171.0	$630,525	$3,687	$260,972	41.4	$369,553
	Radiography	AAS	49.0	$196,035	$4,001	$74,251	37.9	$121,784
FRCC	Dental Assisting	C	45.7	$270,898	$5,928	$69,921	25.8	$200,977
	Respiratory Care	AAS	46.2	$276,397	$5,983	$75,357	27.3	$201,040
	Nursing	C, AAS	301.3	$1,592,328	$5,285	$471,888	29.6	$1,120,440
LCC	Practical Nursing	C	25.6	$269,897	$10,526	$39,229	14.5	$230,668
MCC	Physical Therapy Asst	AAS	37.9	$184,235	$4,866	$85,997	46.7	$98,238
	Occupational Therapy Asst	AAS	24.4	$108,868	$4,458	$39,439	36.2	$69,429
	Nursing	AAS	20.6	$136,359	$6,629	$32,176	23.6	$104,183
	Nurse Asst/Aide	C	5.4	$56,223	$10,412	$8,262	14.7	$47,961

[7] CSU, USC, and UNC exclude clinical costs and revenues. CU-B includes clinical costs and revenues of $221,411.

[8] Indirect costs only; no direct costs can be identified for this program.

Table 2 Continued

FY 1994-95 Information on Costs and Revenues - Other Institutions

School	Program	Degree[9]	SFTE	Program Cost	SFTE Cost	Tuition & Fee Revenue[7]	Tuition & Fee Revenue/Cost %	State Support
OJC	Nursing	AAS	53.8	$372,580	$6,930	$86,106	23.1	$286,474
	Practical Nursing	C	22.3	$156,043	$6,991	$34,150	21.9	$121,894
	Nursing Asst	C	9.7	$77,501	$8,015	$15,040	19.4	$62,460
PCC	Dental Assisting	C, AAS	14.9	$87,389	$5,849	$22,858	26.2	$64,531
	Dental Hygiene	AAS	43.6	$363,895	$8,352	$66,662	18.3	$297,232
	Occupational Therapy Asst	AAS	39.0	$195,949	$5,029	$59,609	30.4	$136,340
	Physical Therapy Asst	AAS	35.0	$185,967	$5,318	$53,504	28.8	$132,463
	Radiologic Technology	AAS	43.8	$251,373	$5,746	$66,938	26.6	$184,435
	Respiratory Care Practitioner	AAS	34.8	$172,693	$4,957	$58,470	33.9	$114,222
	Nursing[10]	C, AAS	152.8	$1,041,395	$6,818	$233,708	22.4	$807,688
PPCC	Dental Assisting	C, AAS	42.3	$181,849	$4,299	$65,757	36.2	$116,092
	Nursing[11]	C, AAS	123.0	$616,715	$5,014	$200,286	32.5	$416,429
RRCC	Nurse Aide/Home Hlth Aide	C	3.3	$11,464	$3,443	$5,315	46.4	$6,149
	RN Refresher Prog	C	13.1	$52,322	$4,003	$20,613	39.4	$31,709
TSJC	Nursing	AAS	23.3	$160,394	$6,884	$40,434	25.2	$119,960
	Practical Nursing	C	33.8	$233,266	$6,901	$66,505	28.5	$166,761
	Nurse Asst/Home Hlth Aide	C	20.2	$86,640	$4,289	$37,544	43.3	$49,096

[9] Key: C-certificate, AAS-associates, BA/BS-baccalaureate, MA/MS-masters, PHD/DVM doctorate.

[10] Includes surgical Technology certificate, Psychiatric Technician certificate, and Practical Nursing certificate.

[11] Includes Practical Nursing.

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Table 2-A

FY 1994-95 Information on Costs and Revenues - Local District Colleges

School	Program	Degree[9]	SFTE	Program Cost	SFTE Cost	Tuition & Fee Revenue	Local District Support	Tuition & Fee Revenue/Cost %	State Support
CNCC	Dental Hygiene	AAS	43.6	$348,666	$7,997	$93,700	$183,331	26.9	$71,635
AIMS	Radiologic Technology	AAS	56.6	$338,256	$5,972	$72,625	$172,628	21.5	$93,003
	Nurse Aide	C	32.5	$135,204	$4,160	$38,698	$43,141	28.6	$53,365
NJC	Practical Nursing	C	26.7	$156,406	$5,862	$18,346	$94,278	11.7	$43,782
CMC	Practical Nursing[12]	C	6.4	$86,698	$13,547	n/a	n/a	n/a	$10,547

[12] Includes Practical Nursing and Nursing Assistant Certificates. Colorado Mountain College did not provide revenue information for these programs.

Table 3

FY 1994-95 Full-time Tuition Rates[13]

School	Program	Degree[16]	Undergraduate		Graduate	
			In-State	Nonresident	In-State	Nonresident
CSU	Occupational Therapy	BS, MS	$2,124	$8,412	$2,446	$8,776
	Veterinary Medicine[14]	DVM			$7,360	$25,760
USC	Nursing	BS	$1,644	$7,100		
ASC	Medical Technology	BS	$1,420	$5,028		
MSC	Radiologic Technology	AAS	$1,434	$5,016		
	Nursing	BS	$1,434	$5,016		
MSCD	Nursing/Hlth Care Mgmt	BS	$1,445	$5,914		
UNC	Communication Disorders	BA, MA	$1,829	$7,731	$2,163	$8,228
	Human Rehabilitation	BS, MA, PhD	$1,829	$7,731	$2,163	$8,228
	Nursing	BS, MS	$1,829	$7,731	$2,163	$8,228
	Medical Technology	BA	$1,829	$7,731	$2,163	$8,228
UC-B	Communication Disorders	BA, MA, PhD	$2,216	$12,780	$2,944	$12,582
UC-HSC[14]	Medicine	MD			$10,139	$45,780
	Medical Scientist Training Prog[15]	MD/PhD			$1,377	$6,048
	Child Hlth Assoc/Phys Asst	MS			$1,350	$5,859
	Child Hlth Assoc/Phys Asst	BS	$4,450	$20,736		
	Biometrics/Med Physics/PubHlth	MS, MSPH			$1,377	$6,048
	Various Fields	PhD			$1,377	$6,048
	Physical Therapy	MS			$6,424	$20,940
	Genetic Counseling	MS			$1,377	$6,048
	Medical Laboratory Sciences	BS	$4,450	$20,736		
	Dentistry	DDS			$6,656	$21,736
	Dental Hygiene	BS	$4,052	$12,846		
	Nursing	ND			$5,333	$16,861
	Nursing	MS			$3,343	$10,098
	Nursing	BS	$4,513	$14,266		
	Nursing Outreach Prog	MS			$3,243	$10,098
	Nursing	PhD			$2,880	$8,976
	Pharmacy	PhD			$2,943	$9,612
	Pharmacy	PharmD, BS	$2,862	$10,548	$4,346	$13,530

[13] Full-time status as defined by each institution.

[14] Annualized tuition rates shown for Prof Veterinary Medicine and all Health Science Center programs.

[15] The tuition rate for the final two years of the Medical Scientist Training Program is the rate for the Doctor of Medicine.

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Table 3 Continued

FY 1994-95 Full-time Tuition Rates[13]

School	Program	Degree[16]	Undergraduate	
			In-State	Nonresident
ACC	Physical Therapy Asst	AAS	$1,244	$5,376
	Medical Laboratory Technology	AAS	$1,244	$5,376
	Nursing	AAS	$1,244	$5,376
	Occupational Therapy Asst	AAS	$1,244	$5,376
	Pharmacy Technician	C	$1,244	$5,376
CCD	Surgical Technology	C	$1,244	$5,376
	Nursing	AAS	$1,244	$5,376
	Radiography	AAS	$1,244	$5,376
FRCC	Dental Assisting	C	$1,244	$5,376
	Respiratory Care	AAS	$1,244	$5,376
	Nursing	C, AAS	$1,244	$5,376
LCC	Practical Nursing	C	$1,244	$4,026
MCC	Physical Therapy Asst	AAS	$1,244	$5,376
	Occupational Therapy Asst	AAS	$1,244	$5,376
	Nursing	AAS	$1,244	$5,376
	Nurse Asst/Aide	C	$1,244	$5,376
OJC	Nursing	AAS	$1,244	$4,026
	Practical Nursing	C	$1,244	$4,026
	Nursing Asst	C	$1,244	$4,026
PCC	Dental Assisting	C, AAS	$1,244	$5,376
	Dental Hygiene	AAS	$1,244	$5,376
	Occupational Therapy Asst	AAS	$1,244	$5,376
	Physical Therapy Asst	AAS	$1,244	$5,376
	Radiologic Technology	AAS	$1,244	$5,376
	Respiratory Care Practitioner	AAS	$1,244	$5,376
	Nursing[17]	C, AAS	$1,244	$5,376
PPCC	Dental Assisting	C, AAS	$1,244	$5,376
	Nursing	AAS	$1,244	$5,376
	Practical Nursing	C	$1,244	$5,376
RRCC	Nurse Aide/Home Hlth Aide	C	$1,244	$5,376
	RN Refresher Prog	C	$1,244	$5,376
TSJC	Nursing	AAS	$1,244	$4,026
	Practical Nursing	C	$1,244	$4,026
	Nurse Asst/Home Hlth Aide	C	$1,244	$4,026

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[16] Key: AAS-Associate, BA/BS-Bachelor, C-Certificate, DDS-Doctor of Dental Surgery, DVM-Doctor of Veterinary Medicine, MD-Doctor of Medicine, MA/MS-Master of Science, MSPH-Master of Science in Public Health, ND-Doctor of Nursing, PharmD-Doctor of Pharmacy, PhD-Doctor of Philosophy.

[17] Includes Surgical Technology certificate, Psychiatric Technician certificate, and Practical Nursing certificate.

Table 3-A

FY 1994-95 Full-time Tuition Rates for Local District Colleges[13]

School	Program	Degrees[16]	In-State Undergraduate		Nonresident Undergraduate
			In District	Out of District	
CNCC	Dental Hygiene	AAS	$0	$950	$3,500
AIMS	Radiologic Technology	AAS	$560	$1,440	$4,500
	Nurse Aide	C	$560	$1,440	$4,500
NJC	Practical Nursing	C	$0	$1,638	$4,158
CMC	Practical Nursing	C	$930	$1,800	$5,550
	Nursing Asst	C	$930	$1,800	$5,550

Table 4

FY 1994-95 Information on Program Demand, Licensing Examination Success, Placement, and Starting Salaries

School	Program	Degrees	% Qualified Applicants Accepted	% Passed Licensing Exam	Placement %[18]	Starting Salaries[19]
CSU	Occupational Therapy	BS	21	99	100	n/a
	Occupational Therapy	MS	7	99	100	n/a
	Veterinary Medicine	DVM	18	93	98	$31,000
USC	Nursing	BS	41	97	100	$27,000
ASC	Medical Technology	BS	100	100	100	$25,000-$35,000
MSC	Radiologic Technology	AAS	100	100	100	($10-$13)/hr
	Nursing	BS	39	96-100	n/a	($13-$16)/hr
MSCD	Nursing/Hlth Care Mngmt[20]	BS	100		n/a	n/a
UNC	Audiology[21]	BA	88		80	n/a
	Audiology	MA	47	100	90	$24,000
	Speech Language Pathology[21]	BA	90		86	$20,000-$25,000
	Speech Language Pathology	MA	34	100	90	$28,000
	Human Rehabilitative Services[21]	BS	94		83	$15,000-$35,000
	Rehabilitation Counseling[21]	MA	84		80-90	$25,000
	Human Rehabilitation[21]	PHD	78		100	$35,000
	Nursing	BS	93	98	97	$20,000- $35,000+
	Nursing[20]	MS	65		100	$35,000-$50,000
	Medical Technology	BA	100	91-96	100	$28,800
UC-B	Communication Disorders	BA, MA, PHD	33	100	100	$26,000-$35,000
UC-HSC	Medicine	MD	7	100	100	$28,000[22]
	Medical Scientist Training Prog	MD/PHD	20	100	100	$28,000[22]
	Child Hlth. Assoc./Phys. Asst	BS, MS	10	98-100	100	$45,000
	Biometrics[21]	MS	60		100	$40,000-$43,000
	Med Physics[21]	MS	7		85	$50,000-$70,000
	Public Hlth[21]	MSPH	16		90	$40,000-$45,000
	Various Fields[21]	PHD	16		90	$25,000-$35,000

[18] Includes employment and/or further education.

[19] Average or range.

[20] Students are already licensed when starting this program.

[21] No licensing exam applies to this program.

[22] First year residency.

Table 4 Continued

FY 1994-95 Information on Program Demand, Licensing Examination Success, Placement, and Starting Salaries

School	Program	Degrees	% Qualified Applicants Accepted	% Passed Licensing Exam	Placement %[18]	Starting Salaries[19]
UC-HSC	Physical Therapy	MS	12	99	100	$20,000-$33,000
	Genetic Counseling[21]	MS	1		90	$35,000-$42,000
	Medical Laboratory Sciences[21]	BS	54		90	$30,000-$34,000
	Dentistry	DDS	6	100	100	$45,000-$60,000
	Dental Hygiene	BS	39	100	100	$35,000-$40,000
	Nursing	ND	48	100	90	$30,000-$45,000
	Nursing[20]	MS	56		92	$40,000-$55,000
	Nursing	BS	24	97	94	$20,000-$30,000
	Nursing Outreach Prog[20]	MS	98		92	$40,000-$55,000
	Nursing[21]	PHD	54		98	$38,000-$45,000
	Pharmacy[21]	PHD	9		100	$25,000-$60,000[23]
	Pharmacy	PharmD	57	100	100	$25,000-$55,000[24]
	Pharmacy	BS	40	87	90-95	$45,000-$65,000
ACC	Physical Therapy Asst	AAS	32	100	100	$21,000-$26,000
	Medical Laboratory Technology	AAS	100	100	90	($9-$13)/hr
	Nursing	AAS	72	97	95	($9-$17)/hr
	Occupational Therapy Asst	AAS	100	100	100	($11-$15)/hr
	Pharmacy Technician[21]	C	100		100	($7.50-$10.50)/hr
CCD	Nuclear Medicine	C	100	80	40[25]	($12-$13)/hr
	Surgical Technology	C	100	100	100	($9-$10.50)/hr
	Nursing	AAS	80-95	78	97	$15.60/hr
	Radiography	AAS	100	95	100	$14/hr
FRCC	Dental Assisting-Westminster	C	100	75-80	100	$8.00/hr
	Respiratory Care-Westminster	AAS	100	100	100	n/a
	Nursing-Westminster[26]	AAS	n/a	95	n/a	n/a
	Practical Nurse-Westminster[26]	C	n/a	97	97	$12.00/hr
	Practical Nurse-Larimer[26]	C	n/a	100	100	$11.18/hr

[23] $25,000-$30,000 for postdoctoral training; $40,000-$60,000 in industry.

[24] $25,000 for those entering a residency program; $55,000 for those entering practice.

[25] Based on full-time employment.

[26] Wait list for these programs varies from less than a year to two years.

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Table 4 Continued

FY 1994-95 Information on Program Demand, Licensing Examination Success, Placement, and Starting Salaries

School	Program	Degrees[17]	% Qualified Applicants Accepted	% Passed Licensing Exam	Placement %[18]	Starting Salaries[19]
FRCC	Practical Nurse-Boulder TEC[26]	C	40	95	100	($9-$12.25)/hr
	Nursing Asst-Boulder TEC	C	100	90	90	$7.24/hr
LCC	Practical Nursing	C	100	92	100	($7-$10)/hr
MCC	Physical Therapy Asst	AAS	75	100	100	$12.00/hr
	Occupational Therapy Asst	AAS	100	92	84	$12.00/hr
	Nursing	AAS	100	84	100	$13.00/hr
	Nurse Asst/Aide	C	100	100	n/a	$4.50/hr
OJC	Nursing	AAS	93	93	100	($12-$17)/hr
	Practical Nursing	C	88	100	100	($8-$13)/hr
	Nursing Asst	C	100	n/a	100	($4.35-$5.75)/hr
PCC	Dental Assisting	C, AAS	95-100	99-100	90-100	($7-$10)/hr
	Dental Hygiene	AAS	65	100	100	($15-$25)/hr
	Occupational Therapy Asst	AAS	83	100	100	$26,000
	Physical Therapy Asst	AAS	38	100	100	$13.00/hr
	Radiologic Technology	AAS	30	100	70	$21,000
	Respiratory Care Practitioner	AAS	100	100	100	$10.85/hr
	Surgical Technology	C	100	82	100	($9-$12.40)/hr
	Psychiatric Technician	C	100	100	100	($9-$10)/hr
	Practical Nursing	C	n/a	96	100	$11.00/hr
	Nursing	AAS	89	92	100	$17.00/hr
PPCC	Dental Assisting	C, AAS	100	95-100	100	($7-$12)/hr
	Nursing	AAS	50	96	79	($13-$20)/hr
RRCC	Nurse Aide/Home Hlth Aide	C	100	100	75	$7.00/hr
	RN Refresher Prog[20]	C	98		75	$18.00/hr
TSJC	Nursing	AAS	100	94	100	($11-$20)/hr
	Practical Nursing	C	100	75	95	($7-$13)/hr
	Nurse Asst/Home Hlth Aide	C	100	100	100	($4.50-$10.00)/hr

[27] Key: C-Certificate, AAS-Associate, BA/BS-Bachelor, DDS-Doctor of Dental Surgery, DVM-Doctor of Veterinary Medicine, MD-Doctor of Medicine, MA/MS-Master of Science, MSPH-Master of Science in Public Health, ND-Doctor of Nursing, PHARMD-Doctor of Pharmacy, PHD-Doctor of Philosophy.

n/a = not available

Table 4-A

FY 1994-95 Information on Program Demand, Licensing Examination Success, Placement, and Starting Salaries for Local District Colleges

School	Program	Degrees[17]	% Qualified Applicants Accepted	% Passed Licensing Exam	Placement %[18]	Starting Salaries[19]
CNCC	Dental Hygiene	AAS	25	100	100	$24.00/hr
AIMS	Radiologic Technology	AAS	1-3 yr wait list	95	90	$20,000-$25,000
	Nurse Aide	C	100	98	99	$6.50/hr
NJC	Practical Nursing	C	1-2 yr wait list	100	100	($8.00-$10.00)/hr
CMC	Practical Nursing	C	n/a	n/a	n/a	n/a
	Nursing Asst	C	n/a	n/a	n/a	n/a